

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently Amended) A method for controlling an SCR-type switch, comprising applying to a switch gate several periods of an unrectified high frequency voltage, a power of each halfwave ~~[[one]] of the unrectified high frequency voltage halfwave~~ being insufficient to start the SCR-type switch.
2. (Currently Amended) The ~~control~~ method of claim 1, wherein the high frequency voltage oscillates at a selected frequency between 10 kHz and a few GHz.
3. (Currently Amended) The method of claim 1, wherein the high frequency voltage is applied via an insulating layer formed above a starting area of the component.
4. (Currently Amended) The method of claim 3, wherein the high frequency voltage is applied above a gate region of a thyristor.
5. (Currently Amended) The method of claim 3, wherein the high frequency voltage is applied above a gate region of a triac.
6. (Currently Amended) The method of claim 3, wherein the high frequency voltage is applied via a high-frequency line having terminals for connection to the high frequency voltage.
7. (Currently Amended) The method of claim 3, wherein the high frequency voltage is applied via a winding that generates a magnetic field or responds to a magnetic field.

8. (Currently Amended) An SCR-type switch component, comprising two main electrodes and at least one control electrode formed on an insulating layer that insulates the control electrode from ~~and arranged above~~ a starting region of the component, said control electrode controlling the SCR-type switch component in response to an unrectified high frequency power supply.

9. (Currently Amended) The SCR-type switch component of claim 8, wherein the control electrode is arranged above a gate region of a thyristor.

10. (Previously Presented) The SCR-type switch component of claim 8, wherein the control electrode is arranged above a gate region of a triac.

11. (Previously Presented) The SCR-type switch component of claim 8, wherein the control electrode is a high-frequency line having terminals for connection to the high frequency power supply.

12. (Previously Presented) The SCR-type switch component of claim 8, wherein the high frequency is applied via a winding that generates a magnetic field or responds to a magnetic field.

13. (New) A method of controlling an SCR-type switch, the method comprising:
providing, to a control terminal of the SCR-type switch, a high-frequency control voltage that controls the SCR-type switch without supplying current from the control terminal to a starting area of the SCR-type switch.

14. (New) The method of claim 13, wherein the high frequency voltage oscillates at a frequency that is between 10 kHz and a few GHz.

15. (New) The method of claim 13, wherein the high frequency voltage oscillates at a frequency of 1 MHz or higher.

16. (New) The method of claim 13, wherein the high frequency control voltage is provided to the control terminal through a capacitor.

17. (New) The method of claim 13, wherein the control terminal is insulated from the starting area.

18. (New) The method of claim 13, wherein the high-frequency control voltage comprises a plurality of halfwaves, wherein each one of the plurality of halfwaves is individually insufficient to turn on the SCR-type switch.

19. (New) The method of claim 18, wherein a power of each one of the plurality of halfwaves is individually insufficient to turn on the SCR-type switch.

20. (New) The method of claim 18, wherein a voltage of each one of the plurality of halfwaves is individually insufficient to turn on the SCR-type switch.

21. (New) The method of claim 18, wherein a duration of each one of the plurality of halfwaves is individually insufficient to turn on the SCR-type switch.

22. (New) The method of claim 13, wherein the SCR-type switch is only turned on in response to a combined effect of a plurality of halfwaves of the high-frequency control voltage but is not turned on in response to an effect of an individual one of the plurality of halfwaves..

23. (New) The method of claim 13, wherein the high-frequency control voltage is unrectified.

24. (New) The method of claim 13, wherein the high-frequency control voltage is applied via a winding that generates a magnetic field or responds to a magnetic field.

25. (New) A method of controlling an SCR-type switch, the method comprising:
providing a control signal to a gate of the SCR-type switch that controls the SCR-type switch;
wherein the control signal is provided to the gate through a capacitor.

26. (New) An method of controlling an SCR-type switch, the method comprising:
providing a high-frequency control voltage to a gate of the SCR-type switch that controls the SCR-type switch;
wherein the SCR-type switch is turned on in response to a combined effect of a plurality of halfwaves of the high-frequency control voltage but is not turned on in response to an effect of an individual one of the plurality of halfwaves.

27. (New) An SCR-type switch, comprising:
a starting region;
an insulating region; and
a first control electrode that is insulated from the starting region by the insulating region.

28. (New) The SCR-type switch of claim 27, wherein the first control electrode is completely insulated from the starting region.

29. (New) The SCR-type switch of claim 27, wherein the first control electrode is inductively coupled to the starting region via the insulating region.

30. (New) The SCR-type switch of claim 27, wherein the first control electrode is capacitively coupled to the starting region via the insulating region.

31. (New) The SCR-type switch of claim 30, wherein the first control electrode contacts the insulating region.

32. (New) The SCR-type switch of claim 31, wherein the insulating region contacts the starting region.

33. (New) The SCR-type switch of claim 27, wherein the first control electrode is insulated, via the insulating layer, from a semiconductor substrate in which semiconductor layers of the SCR-type switch component are formed.

34. The SCR-type switch of claim 27, further comprising:
a second control electrode that is insulated from the starting region by the insulating region.

35. The SCR-type switch of claim 34, wherein the starting region comprises a first region of a first conductivity type and a second region of a second conductivity type, wherein the first control electrode is closer to the first region than to the second region, and wherein the second control electrode is closer to the second region than to the first region.

36. (New) The SCR-type switch of claim 27, wherein the first control electrode contacts the insulating region.

37. (New) The SCR-type switch of claim 27, wherein the insulating region contacts the starting region.

38. (New) The SCR-type switch of claim 27, wherein the SCR-type switch is a triac.

39. (New) The SCR-type switch of claim 27, wherein the SCR-type switch is a thyristor.

40. (New) The SCR-type switch of claim 27, wherein the SCR-type switch is controlled by applying a high-frequency control voltage to the control electrode.

41. (New) The SCR-type switch of claim 40, wherein the SCR-type switch is turned on in response to a combined effect of a plurality of halfwaves of the high-frequency control voltage but is not turned on in response to an effect of an individual one of the plurality of halfwaves.

42. (New) The SCR-type switch of claim 40, wherein the high-frequency control voltage oscillates at a frequency of 1 MHz or higher.

43. (New) The SCR-type switch of claim 40, wherein the high-frequency control voltage controls the SCR-type switch without supplying current from the control terminal to the starting area.